

# High-Speed Information Processing

U T A H   S T A T E   U N I V E R S I T Y

## CENTER

The Center for High-Speed Information Processing (CHIP) bridges the gap between university research and industrial applications in the field of advanced algorithms for a variety of signal processing applications. Companies often need to see a proof-of-concept before licensing a signal processing algorithm. CHIP builds demonstrable prototype systems in a variety of different industrial applications, including a range of voice applications.

## TECHNOLOGY

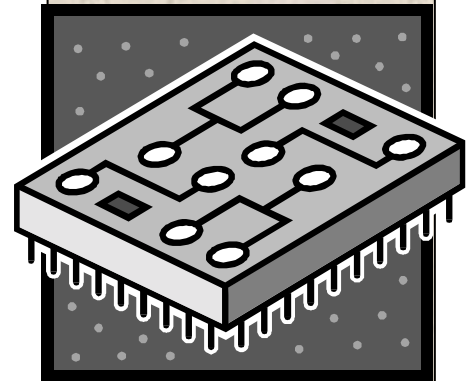
In addition to existing signal processing technologies developed by the Center, this year CHIP has developed or improved a variety of new algorithms such as a convolutional decoder, Viterbi algorithm, various rates and codes (software/hardware) as well as an LDPC decoder, various rates and codes, and DVBS2 software and hardware. These technologies all improve the area of digital sound and digital voice, with a particular emphasis on reducing echoes and feedback. Commercial applications include hearing aids and speakerphones.

## ACCOMPLISHMENTS

CHIP has spent the current year working to transfer its technology and experience into the commercial market, with particular emphasis on its partnership with SP Communications, Inc., an advanced speakerphone licensing partner of the Center. Overall CHIP is working to deliver faster, more powerful signal processing algorithms on smaller integrated circuit chips and their work is being well received in all areas of this field as it helps to reduce size, complexity and power usage for new devices.

## THINK TANK

What if there was...



**A way for audio devices to be smaller, lighter and use less power because of advanced information processing algorithms?**

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